Dental plaque DNA shows Neanderthals chewed ‘aspirin’

Ancient human mouths had same bacteria that cause caries and gum disease today

Ancient DNA found in the dental plaque of Neanderthals — our nearest extinct relative — has provided remarkable new insights into their behavior, diet and evolutionary history, including their use of plant-based medicine to treat pain and illness.

In research findings published in March in the journal Nature, an international team led by the University of Adelaide’s Australian Centre for Ancient DNA (ACAD) and Dental School, with the University of Liverpool in the United Kingdom, revealed the complexity of Neanderthal behavior, including dietary differences between Neanderthal groups and knowledge of medication. “Dental plaque traps microorganisms that lived in the mouth and pathogens found in the respiratory and gastrointestinal tract, as well as bits of food stuck in the teeth — preserving the DNA for thousands of years,” said lead author Dr. Laura Weyrich, ARC Discovery early career research fellow with ACAD.

Genetic analysis of that DNA ‘locked-up’ in plaque represents a unique window into Neanderthal lifestyle — revealing new details of what they ate, what their health was like and how the environment impacted their behavior.”

The international team analyzed and compared dental plaque samples from four Neanderthals found at the cave sites of Spy in Belgium and El Sidrón in Spain. These four samples range from 42,000 to around 50,000 years old and are the oldest dental plaque ever to be genetically analyzed.

“We found that the Neanderthals from Spy Cave consumed woolly rhinoceros and European wild sheep, supplemented with wild mushrooms,” said Professor Alan Cooper, director of ACAD. “Those from El Sidrón Cave, on the other hand, showed no evidence for meat consumption, but appeared instead to have a largely vegetarian diet, comprising pine nuts, moss, mushrooms and tree bark — showing quite different lifestyles between the two groups.

“One of the most surprising finds, however, was in a Neanderthal from El Sidrón, a unique individual who was eating poplar, a source of aspirin, and had also consumed molded vegetation including Penicillium fungus, source of a natural antibiotic.”

Photo/Provided by Paleoanthropology Group MNCN-CSIC

Dental calculus deposit is visible on the back molar of this El Sidrón Neanderthal upper jaw. This individual was eating poplar, a source of aspirin, and had also consumed molded vegetation including Penicillium fungus, source of a natural antibiotic.
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Sidrón, who suffered from a dental abscess visible on the jawbone. The plaque showed that he also had an intestinal parasite that causes acute diarrhea, so clearly he was quite sick. He was eating poplar, which contains the pain killer salicylic acid (the active ingredient of aspirin), and we could also detect a natural antibiotic mold (Penicillium) not seen in the other specimens. “Apparently, Neanderthals possessed a good knowledge of medicinal plants and their various anti-inflammatory and pain-relieving properties and seem to be self-medicating. The use of antibiotics would be very surprising, as this is more than 40,000 years before we developed penicillin. Certainly our findings contrast markedly with the rather simplistic view of our ancient relatives in popular imagination.”

Neanderthals, ancient and modern humans also shared some disease-causing microbes, including the bacteria that cause dental caries and gum disease. The Neanderthal plaque allowed reconstruction of the oldest microbial genome yet sequenced — Methanobrevibacter orale, a commensal that can be associated with gum disease. Remarkably, the genome sequence suggests Neanderthals and humans were swapping pathogens as recently as 180,000 years ago, long after the divergence of the two species.

The team also noted how rapidly the oral microbial community has altered in recent history. The composition of the oral bacterial population in Neanderthals and both ancient and modern humans correlated closely with the amount of meat in the diet, with the Spanish Neanderthals grouping with chimpanzees and our forager ancestors in Africa. In contrast, the Belgian Neanderthal bacte-
One-take impression material can save time, material, costs

By Kettenbach Staff

Purchasing impression material in bulk from your supplier? No reason to change because everything is working fine? What if you could buy a premium product, shipped directly from the manufacturer? This can be achieved with Kettenbach, which according to the company provides high-quality performing materials that will reduce the number of retakes because accuracy is achieved the first time.

Impressions done in one take use less material and cost less. To enjoy the Kettenbach “Advantage, performance and price, sold direct to you,” call (877) 532-2123 to save hundreds or maybe even thousands on your annual purchases.

About Kettenbach
Kettenbach LP is based in Huntington Beach, Calif., and is the exclusive U.S. distributor for Kettenbach GmbH & Co. KG, based in Eschenburg, Germany. Founded in 1944, the company is a leading international producer of impression materials for dental use and is also known in other surgical areas of medicine.

For more information about Kettenbach LP products, you can call (877) KEBA-123 or visit www.kettenbach.com.

According to Kettenbach, the Panasil family of high-quality performing materials reduce the number of retakes because accuracy is achieved the first time — and impressions done in one take use less material and cost less. Photo/Provided by Kettenbach

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CHANGING DENTISTRY. CHANGING LIVES.
Crosstex International Inc. and its subsidiary Accutron Inc. have launched the AXESS™ Mask, a single-use, lightweight and low-profile nasal mask that is contoured to fit comfortably over the patient’s nose.

AXESS Mask and scavenging circuit are constructed of slender, lightweight tubing to reduce drag that can lead to mask displacement. The mask and circuit combined are designed to provide patients with a comfortable experience while offering clinicians easy and unobstructed access to the oral cavity. Neither the mask nor the scavenging circuit contains natural rubber or latex.

"Crosstex is excited to be able to offer new, innovative solutions that address patient comfort as well as patient safety. The AXESS Mask and scavenging circuit offer relaxation for the patient while giving the clinician better access to the oral cavity," said Gary Steinberg, president of Crosstex International.

"Patient safety has always been the cornerstone of the Crosstex mission," said Jackie Beltrani, vice president of Global Marketing for Crosstex International. "The growing emphasis on patient comfort and nitrous oxide/oxygen sedation correlates with an increase in positive patient experiences. For dental professionals, that has the potential to mean more referrals and more opportunities to grow their practices."

For more information about AXESS Masks or for free mask samples, call (800) 531-2221 or go to accutron-inc.com.

About AXESS Masks
AXESS Masks offer visual assurance to the clinician because fogging appears in the translucent mask when patients breathe through their nose.

The contour around the mask perimeter provides a nasal/facial seal that minimizes ambient nitrous oxide in the operatory and gas flow into the patient’s eyes — all without the use of tape or uncomfortable cannula protruding into the patient’s nostril.

The accompanying low-profile scavenging circuit easily retrofits to most scavenging circuits and can be steam-sterilized and reused, making it both cost-effective and environmentally friendly. AXESS Masks are available in three sizes and two scents — mint and bubblegum. A clear, unscented version is available for scent-sensitive patients.

About Crosstex
Crosstex International, a Cantel Medical company, manufactures infection prevention and compliance products for the global health care industry. Founded in 1953 and headquartered in Hauppauge, N.Y., Crosstex is widely known for its portfolio of waterline treatment, biological monitoring, sterility assurance packaging and personal protection equipment (PPE). Sold in more than 100 countries, the range of products distributed to medical, dental and veterinary practices and facilities include the award-winning (five consecutive years) SECURE FIT™ technology face masks, DENTAPURE® waterline treatment cartridges and LIQUID ULTRA® waterline treatment, SURE-CHECK® sterilization pouches with internal/external multi-parameter indicators, Tyvek pouches with 510K approval, SteamPlus Type 5 chemical integrators, CONFIRM® and PASSPORT® Plus in-office and mail-in biological indicators, and RAPICIDE® OPA/28 high level disinfectant. For more information about the full line of Crosstex infection prevention, patient safety and compliance products, please contact Crosstex at (631) 582-6777 or visit www.crosstex.com.

About Cantel Medical
Cantel Medical products include specialized device reprocessing systems for endoscopy and renal dialysis, advanced water purification equipment, sterilants, disinfectants and cleaners, sterility assurance monitoring products for hospitals and dental clinics, disposable infection control products primarily for dental and GI endoscopy markets, dialysate concentrates, hollow fiber membrane filtration and separation products. It provides technical service for all products. For more information, visit the Cantel website at www.cantelmedical.com.
Nasal spray is first FDA-approved, needle-free, regional dental anesthesia for maxillary arch

From St. Renatus: Kovanaze (tetracaine HCl and oxymetazoline HCl) Nasal Spray

By St. Renatus Staff

St. Renatus recently announced that Kovanaze™ (tetracaine HCl and oxymetazoline HCl) Nasal Spray, the first FDA-approved, needle-free, regional dental anesthesia for the maxillary arch, is available for order. Approved by the U.S. Food and Drug Administration (FDA) on June 29, 2016, Kovanaze is indicated for regional anesthesia when performing a restorative procedure on teeth #4-13 and A-J in adults and children who weigh 40 kg or more.

“it is a significant moment in dentistry as a new delivery method for pain management is now available,” said Steve Merrick, chief executive officer of St. Renatus. “For decades, needles have been the mainstay for delivering dental anesthesia; now dentists have the option to offer patients a regional anesthesia via a nasal spray for restorative procedures in the smile zone.”

For full prescribing and important safety information, visit www.kovanaze.com. To learn more or to place an order, you can visit booth No. 737 in the exhibit hall at the AAACD Scientific Session in Las Vegas, contact your dental dealer or call the Kovanaze Support Line at (800) 770-9400.

Additional prescribing information

These highlights do not include all information needed to use Kovanaze safely and effectively. See the package insert for full prescribing details.

- Indications and usage: Kovanaze contains tetracaine HCl, an ester local anesthetic, and oxymetazoline HCl, a vasoconstrictor.
- Dosage and administration: Kovanaze is for intranasal use only. Administer Kovanaze ipsilateral (on the same side) to the maxillary tooth on which the dental procedure will be performed.
- Dosage forms and strengths: Nasal spray is pre-filled, single-use sprayer. 6 mg tetracaine HCl and 0.1 mg oxymetazoline HCl (equivalent to 5.27 mg tetracaine and 0.088 mg oxymetazoline) in each 0.2 mL spray.
- Contraindications: Known hypersensitivity to tetracaine, benzyl alcohol, other ester local anesthetics, p-aminobenzoic acid (PABA), oxymetazoline, or any other component of the product.
- Adverse reactions: The most common adverse reactions occurring in less than 10 percent of patients include rhinorrhea, nasal congestion, lacrimation increased, nasal discomfort and oropharyngeal pain. Transient, asymptomatic elevations in systolic blood pressure and diastolic blood pressures have been reported.
Rhein83, which produces attachments for removable prostheses, describes its OT EQUATOR as being the smallest dimensional attachment system on the market. The system employs a reduced vertical profile of 2.1 mm with a 4.4 mm diameter. According to the company, the attachment is compatible with all implant systems and brands and provides superior stability and retention for the prosthesis.

Features include:
- The smallest dimensional implant abutment available on the market.
- Manufactured to be compatible with all implant brands and platforms.
- Available in eight different gingival heights.
- Titanium coating procedure used to increase the attachment’s hardness and durability.
- Variety of elastic retentive caps available.
- Smart Box system now available to enable corrections of more than 50 degrees in implant divergence.
- Single castable and threaded titanium attachment systems available.
- Customized ordering based on implant brand, diameter and gingival height.
- ISO 9001 – ISO 13485 valid certificates.
- Patent validated by FDA, CE, Russia, Canada, Japan, Korea and other countries.

For additional information, you can visit www.rhein83.com, send an email to marketing@rhein83.it or telephone internationally at 003 (905) 124-4510.

Smart Box
Rhein83 also has developed Smart Box, which can be used with the OT Equator in cases of extreme divergences between the implants. The Smart Box has an inner tilting mechanism that enables a passive insertion with divergent implants up to 50 degrees.

An expert’s opinion
Roberto Scrascia, DDS, is a prosthodontist specializing in bone regenerative surgery. He has written numerous clinical articles for publications in Italy and throughout the world (Roberto.scrascia@gmail.com). Following are his comments about his use of the OT Equator attachment system and the Smart Box:

In the implant prosthetic rehabilitation with an overdenture, the choice of the retentive systems is a crucial moment; it is fundamental to analyze and evaluate carefully the options provided by the market in order to avoid problems that may occur at an early stage or during the treatment.

Before the Smart Box, there was little chance (of being able to take advantage of) the performances of the OT Equator when there were severe divergences of the implants due to the lack of bone because of resorption in the jaws of older patients. In situations like these, a low-profile attachment is often the preferable solution, because it provides good stability and all the space for an esthetic denture.

Thanks to the innovative and original mechanism of the Smart Box, we can extend the limit of usability of the OT Equator attachment without losing any of its performances and qualities.

The Smart Box, with its tilting mechanism, allows and facilitates the smooth insertion of the prosthesis, a positive feature of the OT Equator by Rhein83. Smart Box is a new product that provides us a good opportunity to enhance the solutions we can offer to our patients in our everyday work.
10 do’s and don’ts for generating and monitoring online reviews

By Travis Rodgers, RecordLinc

DO:
1. Claim your online business listings: There are several review sites for potential customers to find information about you or your competitors. Claim your listings on as many of these sites as possible. Make sure all information is accurate and consistent across all sites and edit your listings to include a brief business profile, photos, office hours and list of services.

2. Routinely ask your customers to write reviews: If past customers have articulated how pleased they are with the service you provide, ask them to submit an online review that speaks to their positive experience. The most trusted reviews are the ones that provide details. Both customers and search engines want to see if you’ve earned accolades for your service over a period of time.

3. Make your review request personal: However you request reviews — by snail mail or email — let your customers know you value their honest feedback. Ultimately, it will help you improve your operations and customer service.

4. Monitor your reviews: Online reviews tell you a lot about what customers think about the quality of your service. Without continual and thorough monitoring, you’re left with a serious blind spot. You can mine this wealth of data to uncover and address recurring service or operational issues — such as difficult parking or personnel challenges.

5. Mention reviews in your customer-facing sites: Add those positive reviews to your own website and social media pages. Link reviews back to their original sources. Loyal customers who read these reviews may be inspired to add their own. You can also put tablets or kiosks in your reception area to collect new reviews.

DON’T:
6. Send out review requests all at once: It’s important to generate reviews on a scalable and scheduled basis, not all at once. The power of reviews is cumulative.

7. Solicit or publish fake reviews: Never offer your customers an incentive to write a review or create testimonials. This is unethical and will lose credibility for your company. In fact, review sites are becoming more savvy about false reviews and may remove them.

8. Ask disgruntled customers to review your organization before you’ve resolved their issues: It’s wise to resolve issues prior to requesting a review. Once the issue is resolved, you can request that the customer write a review about how you addressed the problem. Often your fiercest advocates are initially unhappy customers whose problems you’ve solved.

9. Ignore negative reviews: Negative reviews can put your reputation on the line. But you can control the outcome. Your best defense is a good response. Customers want to see how you handle the situation when things go wrong. If appropriate, offer to handle the issue offline.

10. Try to remove negative reviews: If you can’t resolve a customer’s issue and turn a negative review into a positive one, let it go. Attempting to remove a negative review can aggravate the situation and lead to additional negative comments. Focus instead on building a wealth of positive reviews.

To learn more about how you can improve your business’s online reputation and drive revenue, email Travis Rodgers at RecordLinc at travis@recordlinc.com.
Kovanaze™ is the first FDA-approved Nasal Spray indicated for regional anesthesia when performing a restorative procedure on teeth 4-13 and A-J in adults and children who weigh 40 kg or more. And as its name implies, Kovanaze Nasal Spray is needle-free!

Inject or spray? — The choice is between you and your patient.

IMPORTANT SAFETY INFORMATION: Use in patients with uncontrolled hypertension or inadequately controlled active thyroid disease of any type is not advised. Tetracaine may cause methemoglobinemia, particularly in conjunction with methemoglobin-inducing agents. Use of KOVANAZE in patients with a history of congenital or idiopathic methemoglobinemia is not advised. Methemoglobinemia should be considered if central cyanosis unresponsive to oxygen therapy occurs, especially if methemoglobinemia-inducing agents have been used. Confirm diagnosis by measuring methemoglobin level with co-oximetry. Treat clinically significant symptoms of methemoglobinemia with a standard clinical regimen. Allergic or anaphylactic reactions can occur. If an allergic reaction occurs, seek emergency help immediately. KOVANAZE is contraindicated in patients with a history of allergy to tetracaine, benzyl alcohol, other ester local anesthetics, p-aminobenzoic acid (PABA), oxymetazoline, or any other component of the product. Some clinical trial patients experienced an increase in blood pressure so blood pressure should be monitored. In addition, patients should be carefully monitored for dysphagia. KOVANAZE is not recommended for use in patients with a history of frequent nose bleeds. Concomitant use of monoamine oxidase inhibitors, nonselective beta adrenergic antagonist, or tricyclic antidepressants may cause hypertension and is not recommended. Discontinue use of oxymetazoline-containing products 24 hours prior to KOVANAZE administration. Avoid concomitant use of intranasal products. The most common adverse reactions to KOVANAZE occurring in >10% of patients include a runny nose, nasal congestion, nasal discomfort, sore throat, and watery eyes.

Learn more at www.kovanaze.com or call the Kovanaze Support Line at 1.800.770.9400

Manufactured for St. Renatus
brief summary • Local Anesthetic for Regional Anesthesia

[KOVANASE](tetracaine HCl and oxymetazoline HCl) Nasal Spray

INDICATIONS AND USAGE
KOVANASE contains tetracaine HCl, an ester local anesthetic, and oxymetazoline HCl, a vasoconstrictor. KOVANASE is indicated for regional anesthesia when performing a restorative procedure on teeth 4-15 and A-1 in adults and children who weigh 40 kg or more.

CONTRAINDICATIONS
KOVANASE is contraindicated in patients with a history of allergy to or intolerance of tetracaine, benzyl alcohol, other ester local anesthetics, -p-aminobenzaldehyde (PARA), oxymetazoline, or any other component of the product.

WARNINGS AND PRECAUTIONS
Risk of Hypertension: KOVANASE has not been studied in Phase 3 trials in adult dental patients with blood pressure greater than 150/100 or in those with inadequately controlled active thyroid disease.

KOVANASE has been shown to increase blood pressure in some patients in clinical trials. Monitor patients for increased blood pressure. Use in patients with uncontrolled hypertension or inadequately controlled active thyroid disease of any type is not advised.

Epistaxis: In clinical trials, epistaxis occurred more frequently with KOVANASE than placebo. Either do not use KOVANASE in patients with a history of frequent nose bleeds (>5 per month) or monitor patients with frequent nose bleeds more carefully if KOVANASE is used.

Dysphagia: In clinical trials, dysphagia occurred more frequently with KOVANASE than placebo. Carefully monitor patients for this adverse reaction.

Oxymetazoline nasal spray may cause vasoconstriction and lower blood pressure. Use with caution in patients with a history of cardiovascular disease or with a history of hypertension.

Drug Interactions: Oxymetazoline nasal spray may interact with other drugs that cause vasoconstriction, such as beta-blockers, calcium channel blockers, and selective serotonin reuptake inhibitors (SSRIs). These interactions may increase the risk of side effects, including dizziness, drowsiness, and orthostatic hypotension.

USE IN SPECIFIC POPULATIONS
Pregnancy Risk Summary: Limited published data on tetracaine use in pregnant women are not sufficient to inform any risks. Published epidemiologic studies of nasal oxymetazoline use as a decongestant during pregnancy do not identify any consistent association with any specific malformation or pattern of malformations. However, use of oxymetazoline during pregnancy may cause fetal harm when administered to a pregnant woman. It is not known whether oxymetazoline is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when administering KOVANASE to a nursing mother.

OVERDOSAGE
No specific treatment is required for overdose. Treatment of an overdose includes supportive care and symptomatic management. If overdose occurs, the patient should be monitored closely for any signs of toxicity.

Information for Patients: Inform patients of the risks of using the product, including local anesthesia, vasoconstriction, and nasal decongestion. Inform patients of the potential side effects associated with use of the product, including dizziness, drowsiness, and headache. Provide instructions for proper use and storage of the product.

HOW SUPPLIED
KOVANASE Nasal Spray is a preservative-free, single-use, intranasal spray containing a clear 0.2% aqueous solution of tetracaine hydrochloride and oxymetazoline hydrochloride. The solution is sterile.

STORAGE AND HANDLING
Store between 2° and 8°C (36° and 46°F); excursions permitted between 0° and 15°C (32° and 59°F) [see USP controlled cold temperature]. Discard any unused solution. Do NOT use if drug is left out at room temperature for more than 5 days.

PATIENT COUNSELING INFORMATION
Inform patients of the risks of using the product, including local anesthesia, vasoconstriction, and nasal decongestion. Inform patients of the potential side effects associated with use of the product, including dizziness, drowsiness, and headache. Provide instructions for proper use and storage of the product.

Advise patients to inform the dental practitioner if they are taking monoamine oxidase inhibitors (MAOIs), nonselective beta-adrenergic antagonists, or tricyclic antidepressants. Because of the potential for additive vasoconstrictor effects, use with caution in patients taking these medications.

Advise patients to notify their physician if they develop any signs of hypersensitivity reactions and to seek immediate medical attention if such symptoms persist.

Manufactured for: St. Renatus, LLC, Fort Collins, CO 80526
KOVANASE is a trademark of St. Renatus, LLC.
Dr. Paul P. Binon, left, and Dr. Steven Present each holding a ‘Certificate in Implant Dentistry.’  

Photo/Provided by the AO

AO announces its first two recipients of new ‘Certificate in Implant Dentistry’

By AO Staff

California prosthodontist and a Pennsylvania general dentist are the first Academy of Osseointegration (AO) members to receive the new AO Certificate in Implant Dentistry.

These awards were presented in February during the opening symposium of AO’s 2017 Annual Meeting in Orlando, Fla.

Recipients are:

• Paul P. Binon, DDS, MSD, prosthodontist, Roseville, Calif.

• Steven Present, DMD, general dentist, North Wales, Pa.

‘I am so pleased that the AO is offering a credible means of acknowledging proficiency in implant dentistry. The main reason I decided to obtain the certificate was to make a statement. Our patients and the public need to have a means of distinguishing fact from fancy. The hype is out there. I do implants, you do implants, we do implants is not good enough,’ Binon said.

‘I believe that obtaining an AO certificate is a very good start. It tells the public you know your stuff and have been vetted by fellow professionals. I believe it will give you considerable credibility,’ he continued.

To meet the certificate’s requirements, Binon and Present presented evidence of completing 200 hours of continuing education during a three-year period, including 85 hours of ‘core knowledge.’ They also submitted four case presentations covering the following categories: single tooth, fixed partial denture (fixed bridge), full arch fixed reconstruction, and over denture. They have also been AO members for three consecutive years and attended at least two annual meetings during that time.

AO initiated the certificate program at its 2016 annual meeting in response to a growing number of AO members seeking distinction in the field of implant dentistry. The certificate represents the highest standards of excellence in implant dentistry and distinguishes practitioners’ continuing education efforts and knowledge to patients and colleagues around the globe.

‘The AO’s new Certificate in Implant Dentistry will distinguish accomplished practitioners from those who have not

See CERTIFICATE, page B2

AAP president: Periodontist is go-to expert

A Q&A with Dr. Griffin on AAP’s upcoming events, goals

By Sierra Rendon, Managing Editor

Hello, I’m Terrence J. Griffin, DMD, and I am the president of the American Academy of Periodontology. I maintain a private periodontal practice founded by Dr. Irving Glickman in 1939 right in the heart of Boston. After I completed my dental degree from Tufts University in Boston, I served in the U.S. Navy where I completed a one-year fellowship in periodontics at Marine Corps Base Camp Lejeune in North Carolina. After I completed my tour of duty, I returned to Tufts as a postdoctoral fellow in periodontics at Marine Corps Base Camp Lejeune in North Carolina. After I completed my tour of duty, I returned to Tufts as a postdoctoral fellow in periodontics at Marine Corps Base Camp Lejeune in North Carolina. After I completed my tour of duty, I returned to Tufts as a postdoctoral fellow in periodontics at Marine Corps Base Camp Lejeune in North Carolina.

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‘The AO’s new Certificate in Implant Dentistry will distinguish accomplished practitioners from those who have not

See CERTIFICATE, page B2

See PERIODONTIST, page B2
met the challenge of continuing education requirements and case presentations,” said Dr. American D. Sones, Dallas, Texas, chair of the New Fellowship and Certificate Committee. “Certification represents the highest standards of excellence in implant dentistry.”

“This certificate can also help patients to select their clinician with the knowledge that they are not only members of AO — the premier implant organization globally—but have also been recognized by the academy for their continuing education and practice in the field of dental implants,” said Dr. Michael Norton, board liaison to the Fellowship & Certificate Committee.

Candidates may select the application that best suits their training, with a focus on surgery, restorative or both surgery and restorative aspects of dental treatment. One of the cases presented will require a signed statement of authenticity from the patient and be notarized.

“The website, www.osseo.org, has more complete information, including applications along with a Q&A and supporting resources for submission.”

**About the AAO**

With 6,000 members in 70 countries around the world, the AAO is well recognized as a premier international association for professionals interested in implant dentistry. AO serves as a nexus where specialists and generalists can come together to evaluate emerging research, technology and techniques, share best information, and coordinate optimal patient care using timely, evidence-based science and methods.

**What has been your experience with the AAP’s Chicago headquarters in February?**

Evidence Consensus, which was held at the AAP’s Chicago headquarters in February, adhered to a new model of a like-minded community, united in the forward movement of the specialty with the goal of helping patients and advancing the specialty of periodontology and implant surgery. That’s what it all boils down to: making sure that our patients receive optimal care and positive outcomes.

This comes from awareness, support, and collaboration, all of which are central to the academy’s core values.

**What are your specific goals for your time as AAP president?**

One objective is to continue educating the public about the value of healthy gums and achieving it through regular at-home care and receiving a comprehensive periodontal evaluation every year. I also want to continue positioning the periodontist as the go-to expert in periodontal care and in the placement and maintenance of implants. With this comes the emphasis on the collaboration care model that includes the general dentist, the periodontist and the physician, if necessary, in the management of periodontal conditions and ailments linked to them, such as diabetes.

Another area of focus for my term is the expansion of the academy’s scientific agenda, and this year will bring some key events in this area. The first is the Best Evidence Consensus, which was held at the AAP’s Chicago headquarters in February. We welcomed 24 experts in cone-beam computed tomography and lasers, relatively new tools for which evidence is slowly emerging.

The meeting adhered to a new model of evidence-based consensus and opinion aimed and aided in the expansion of the periodontist’s scope of practice. Proceedings from this meeting will be available in the Journal of Periodontology this summer and will include informed suggestions on the most appropriate interventions for the best-suited patients for each of these clinical technologies.

In November, we’re hosting more than 100 practitioners, researchers and thought leaders for the World Workshop on Disease Classification. Because this disease classification has not been done for nearly 20 years, the existing guidelines don’t account for some of the prevalent implications of our time, peri-implant disease being one. The new disease classification will also define periodontal health.

Think about the difference this makes when a patient is in the chair and does not meet the parameters of periodontal health. This spurs the clinician to delve deeper into how the patient is treated and how they can be met. This workshop will provide practical, up-to-date guidance that will be published in the Journal of Periodontology in 2018.

**When is this year’s AAP Annual Meeting and are there any highlights you can share?**

This year’s AAP Annual Meeting will be held Sept. 9-12 in Boston, our hometown. We recently assembled a task force to identify ways to improve our annual meeting, whether it’s through inviting thought-provoking speakers or showcasing new ideas in a way that inspires and creates dialogue. I hope that everyone at all stages of their careers joins us this year. On the agenda so far, we have a number of hands-on workshops, practice-management courses and sessions on topics such as oral plastic surgery, regeneration, implants and cone-beam computed tomography. There’s much more to come as the event nears.

**What do you see as the main new development in periodontology during the next few years?**

It seems like quite regularly, researchers are uncovering more about the links between periodontal disease and other systemic conditions. We’ve known for years about the strong connection between periodontal disease and diabetes, and the evidence of the link to heart disease has strengthened as well. But now we’re learning about periodontitis’ associations with rheumatoid arthritis and atrial fibrillation in the heart. We’re even learning about links between peri-odontitis and lung infections for hospital patients who have been intubated. Last year, we found more evidence of periodontal disease’s link to an increased risk of pancreatic cancer.

All of this is to say that the work that we do is about more than clearing infection, saving teeth and placing implants when necessary; we play an integral role in our patients’ overall well-being. This is where collaborative care is key. The medical and periodontal communities need to continue to be more diligent not only in working with one another, but in educating patients about the increased risk of developing other health conditions when periodontal disease is present and vice versa.

What I see happening in this arena in the next few years are broadening avenues of study that will bring us closer to understanding the origin of these links. Where do travelling microbes fit in? Inflammation? What other mechanisms are driving this? As we’re able to better grasp these mechanisms, I hope that the high science can be distilled to an applicable means for treating and managing patients for both conditions or in the prevention of the other if one is present.

**What is your passion besides dentistry?**

I have a great love for teaching. In addition to my long career at Tufts, I have spent many years as a visiting professor at the University of Rome “La Sapienza,” Jiao Tong University in Shanghai and King Abdulaziz University in Jeddah, Saudi Arabia. I’ve lectured in more than 30 countries, and I’m leaving tonight to lecture in Athens, Greece, and Tehran later this year. Lecturing energizes me, and I love to engage my audience. One of my favorite things is to see students light up at the many new possibilities for the specialty of periodontology.

**Do you have general comments or critique you would like to share?**

I have a particular hope you would see to be featured in Implant Tribune! Let us know by e-mailing John Seid at e.seid@dental-tribune.com. We look forward to hearing from you. If you would like to make any changes to your subscription (name, address or to opt out), please send an e-mail to m.kaiser@dental-tribune.com and be sure to include, which publication you are referring to. Also, please note that subscription changes may take up to six weeks to process.
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Aacd annual scientific session in Las Vegas April 18–21

The American Academy of Cosmetic Dentistry (Aacd) 33rd Annual Scientific Session will be held from April 18–21 (Tuesday–Friday), in Las Vegas, Nevada. The conference, described by organizers as “the world’s largest continuing education program for cosmetic dentistry,” will feature more than 15 hands-on workshops, 60 lectures and 100 speakers. The annual event typically draws between 1,300 to 1,500 dental professionals and includes courses and events serving dentists, lab technicians, hygienists, and dental team members to help them refine their skills, learn the latest techniques and share ideas.

General session speakers

The 2017 conference will take place at the Venetian Resort Hotel & Casino and will feature three groups of educators: the “Legends,” the “Illusionists” and the “High Rollers,” who will reveal their techniques and share their expertise. The Venetian Resort Hotel & Casino is one of Forbes Travel Guide’s Four-Star hotels for the 13th year in a row and has been described as being one of the seven “Greatest Hotels in the World.”

General sessions at Aacd17 in Las Vegas will feature some of the industry’s top speakers with messages for the entire dental team. Speakers include:

• Daniel “Rudy” Ruettiger, who overcame obstacles and criticisms to attend Notre Dame and play football for the Fighting Irish. As fans cheered “RU-DY, RU-DY,” he sacked the quarterback in the last 27 seconds of the only play in the only game of his college football career. He is the only player in the school’s history to be carried off the field on his teammates’ shoulders. Today, he is considered to be one of the most popular motivational speakers in the United States.

• Doug Hanson, an internationally recognized speaker, consultant and peak-performance coach, will reveal why businesses with high expectations and a positive approach are innovative, efficient, productive, have lower costs, lower turnover, fewer distractions and are quicker to respond to change. Hanson will show how great teams create relationships that last a lifetime.

• Dr. Jackie Freiberg will lay out the preconditions leaders must create to ensure that “innovation” is a deeply embedded part of your practice’s cultural DNA, where teams are hungry for change and inspired to find innovative ways to overcome challenges in part by reducing costs while improving quality of patient care. Freiberg will share strategies for collaborating, thinking creatively, turning liabilities to assets and finding ideas outside of your industry. Attendees will learn how the most creative companies in the world innovate beyond customer expectations.

The Aacd is the world’s largest non-profit member organization dedicated to advancing excellence in comprehensive oral care that combines art and science to optimally improve dental health, esthetics and function. Comprising more than 6,300 cosmetic dental professionals in 70 countries, the Aacd fulfills its mission by offering educational opportunities, promoting and supporting an accreditation credential, serving as a forum for the creative exchange of knowledge and ideas and providing accurate information to the public and the profession. The academy is a recognized credit provider for the Academy of General Dentistry, the American Dental Association, and the National Association of Dental Laboratories.

Learn more about the annual meeting at www.aacdconference.com.

By David L. Hoexter, DMD, FACD, FICD

Editor in Chief

The use of lasers in dentistry— and in medical procedures in general — has made great strides in recent years, not only in effectiveness but also in acceptance by patients. Our colleagues in medicine, such as dermatologists and ophthalmologists, have used lasers for years for myriad reasons. Visiting a dermatologist’s office recently, I observed a variety of large, bulky and costly lasers. The different types have been needed because the doctor’s choice of laser power source will vary based on the desired outcome goals for the procedure. Dermatological procedures are chiefly concerned with soft tissue — its responses and reactions defensively as well as offensively. As has been true with general medical uses of lasers, the laser systems recommended for dentistry have been reconfigured primarily to soft-tissue procedures. The reason for this is that with the exception of relatively recently introduced technology, using lasers on hard tissue in dentistry would typically cause desiccation of the tooth or bone being treated.

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Fig. 1

Clinical

Periodontal esthetics with soft-tissue lasers

By David L. Hoexter, DMD, FACD, FICD

Editor in Chief

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leaving the affected hard tissue dried out and brittle. Early laser technology that was promoted as appropriate for hard-tissue procedures made lots of noise, cost lots of money and at best achieved minimal and limited results. Recently, however, new laser technology for use on hard-tissue dental structures has proved to be more capable of meeting goals of both practicality and effectiveness.

This article, though, will limit its focus to the soft-tissue side: specifically, achieving desired esthetic results by using soft-tissue laser technology to treat gingival hyperplasia.

My personal experience with lasers dates back more than 25 years to when I bought a CO2 laser for my private practice. It was an adventurous and costly (about $60,000 in early ’90s dollars) commitment. There were no laser dental societies back then — just a few of us dentists trying to find newer techniques to more effectively and comfortably achieve the results our patients desired. Hyperplasia of epithelial tissue of the gingival area breaks the smooth appearance of the periodontal tissue, compromising esthetic goals. It also makes it difficult for patients to maintain good oral hygiene, leading to inflammation of tissue and increasing risk of progression to periodontitis.

Case 1

As illustrated in Fig. 1, a patient presented to my office with a singular localized dense hyperplastic area, confirmed through oral examination. The 31-year-old female had neat clothes and clean, well-maintained hands and nails. She related how difficult the local area was to clean, describing that cleaning efforts hurt and caused bleeding, especially when she flossed. The local area also didn’t look clean visually, creating an unresting esthetic. There was a break in the continuity of the smooth appearance of the gingiva, causing the tooth to appear uneven.

As mentioned, there are and have been several laser devices available for years for use in a variety of soft-tissue dental procedures. All have the ability to achieve desired results when the practitioner is experienced with the technology and procedure. Some laser devices have the adaptability for different strengths, but, when used correctly, all can treat soft-tissue disease with desired results.

To correct this particular defect, we had the choice of using a sharp, coldsteel instrument or a laser. We opted to use a diode laser, which is easy to use and causes no bleeding in the wound, thus avoiding the need for a periodontal dressing that would be necessary to cover the resulting wound if cold steel was used.

The results documented in Figs. 1–4 were achieved using the AMD Picasso (Indianapolis) diode laser exclusively. Instead of being heavy or bulky, it is portable and lightweight. It can be moved easily into each operatory as needed, removing the need to purchase separate units for each operatory. Also, the fiber tips are disposable, ensuring sterility.

A key factor for me in choosing the AMD Picasso laser was its adaptability. Traditionally, costs for soft-tissue lasers seemed relatively high, ranging from $12,000 to $32,000. This light, portable system ranges from $2,000 to $3,500. In my experience, the system not only achieves results comparable to the more expensive systems, but it does so with ease.

In this particular case, a diode laser was used. The result was an esthetic improvement, showing newly minted enthusiasm, we proceeded with the case, as illustrated in Figs. 5–8. The figures and captions document the treatment of a simple local hyperplastic tissue area, as well as a complex acutely inflamed hyperplastic area.

Conclusion

In both of these cases, the patients were treated by using a soft-tissue laser to achieve correct, desired results. While any soft-tissue laser system might have achieved similar results, in these cases, a diode AMD Picasso laser was used.

I chose this particular laser primarily because of what I consider to be its reasonable cost when compared with others, its ease of use and the disposables tips that make it easy to maintain sterility. The AMD Picasso laser was cost. Tradition -

David L. Hockett, DMD, FICD, FACD, is director of the International Academy for Dental Facial Esthetics and a clinical professor in periodontics and implantology at Temple University, Philadelphia. He is a diplomate in the International Congress of Oral Implantologists, the American Society of Osseointegration and the American Board of Aesthetic Dentistry. He lectures throughout the world and has published nationally and internationally. He has been awarded 12 fellowships, including FADC, FICD and Pierre Fauchard. He has a practice in New York City limited to periodontics, implantology and esthetic surgery. Contact him at (212) 355-0004 or drdwarrr@gmail.com

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Fig. 2: In case No. 1, diode laser removes dense, undesired hyperplastic tissue in minutes with no bleeding. Fig. 3: Periodontal probe in the treated area. There is no tissue depth at all, and the patient is able to maintain her oral health. Fig. 4: Area healed, esthetically blended.

Fig. 5: In case No. 2, initial labial view of teenage patient with inflamed hyperplastic gingiva of maxillary anteriors.

Fig. 6: Removal of undesired hyperplastic tissue using AMD diode laser with disposable laser tips. Fig. 7: Tissue removed from maxillary anterior area, progressing toward desired results.
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Endodontists from around the world to gather for AAE17

Annual meeting is April 26-29 in New Orleans

Registration is open for AAE17, the annual meeting of the American Association of Endodontists, taking place April 26-29 (Wednesday through Saturday) at the Ernest N. Morial Convention Center in New Orleans. Billed as the world’s largest education, exhibit and networking event for endodontists, AAE17 features a broad range of speakers, an exhibit hall and a number of special events.

This year’s general session will feature keynote speakers James Carville and Mary Matalin, New Orleans residents and one of America’s best-loved political couples. Other special events include the President’s Breakfast, the Louis I. Grossman Ceremony, recognizing the newest diplomates of the American Board of Endodontics, and the Edgar D. Coolidge Jazz Brunch, honoring the AAE’s award winners. Making the most of the Crescent City, the Welcome Reception will feature New Orleans-style cuisine and entertainment, while attendees will join a brass band to march to “Celebrate New Orleans!” at Generations Hall.

On the show floor, attendees will be able to visit with nearly 100 vendors to explore the latest in endodontic equipment, materials and supplies, as well as practice management and other business resources to support endodontic practices.

There are plenty of educational opportunities, offered in many different settings.

“My goal for AAE17 is to offer a highly scientific, evidence-based program, and to include speakers new to presenting at the annual meeting,” said AAE President Linda G. Levin. “I also want attendees to enjoy all that New Orleans has to offer — from the sights, sounds and cuisine, there will be no mistaking we’re in the Big Easy.”

AAE17 offers more than 100 educational sessions in a variety of tracks, including “Pulp Fiction,” which will address controversial and misunderstood topics in the specialty; “Saving the Natural Tooth,” sharing the latest evidence and recommended treatments to save patients’ teeth; and “Surgical and Non-surgical Endodontics.” The highlight of the surgical endodontics track is live, 3-D microsurgery. Dr. Syngcuk Kim will perform two live endodontic microsurgeries using 3-D technology that allows attendees to view the procedure as the surgeon sees it through the microscope.

More educational highlights

Dr. L. Stephen Buchanan will offer “CT-Guided Endodontic Procedures” on Saturday from 12:45 to 1:30 p.m. in Room 244. CT-guided implant surgery has been around for more than a decade and has grown as the sine qua non of implant surgery. This technology is directly applicable to endodontics, both for conventional access preparation and apical surgery. This presentation will review CT-guided implant technology and Buchanan’s clinical cases using this method for conventional and surgical endodontic treatment. It will show how clinicians can set up and use this paradigm shift in procedural treatment planning for root canal therapy as well as for implant placement for those endodontists who want to add implant surgery to their practices.

Dr. Anne L. Koch will offer two presentations, starting with “The Single Cone Bioceramic Sealer Obturation Technique: A Historical Perspective” on Saturday, from 8:30 to 9:15 a.m. in Room 349. Recently, it has been reported that a single cone bioceramic sealer technique has been used in 20 million cases. It is known as an excellent technique, based on science, and one that has gained worldwide acceptance. Consequently, Koch will review this technique from its inception, through its development, and ultimately to where it is today.

And, drawing on her personal experience, Koch will also present “Treatment of the Transgender Dental Patient” on Saturday from noon to 12:45 p.m. in Room 349. As Koch will explain, transgender patients have historically been stigmatized, both in the medical and dental fields. The purpose of this presentation is to educate endodontists, residents and staff about the medical and psychological needs of
Sonendo to showcase its GentleWave technology at meeting in New Orleans

Sonendo® — manufacturer of the GentleWave® System featuring Multisonic Ultracleaning® — is bringing its technology and fun to AAE17, the annual meeting in New Orleans, April 26-29 at the Ernest N. Morial Convention Center. Among the many highlights for Sonendo will be a presentation titled “Minimizing the Incidence of Endodontic Treatment Failure by Maximizing Canal Debradement and Disinfection Using GentleWave Technology.” This lecture, part of AAE’s “To The Point” series, will be offered on Friday, April 28, from 12:15 to 1:15 p.m. in Exhibit Hall B. This intensive, one-hour lecture and hands-on experience will discuss and demonstrate the new and novel ProDesign Logic CM single file instrument system in minimally invasive endodontics. Participants will be using ProDesign Logic Glide Path (.01 tapered) and Shaper (.05 tapered) instruments during the hands-on registration is required, and space is limited. There is a $25 fee for supplies.

John J. Stropko will present “Alternative Treatments for External Cervical Resorption” on Friday from 10:45 to 11:30 a.m. in Room 254. External cervical resorption (ECR) is one of the least understood of all dental lesions. The past literature can be confusing, because ECR has been referred to by many names, and is often confused with internal resorption. However, more current research, along with modern diagnostic techniques, has caused a more frequent necessity for treatment. Dr. Geoffrey Heithersay has outlined a commonly used treatment protocol utilizing 90 percent trichloroacetic acid (TCA). This presentation will discuss other materials and techniques that can be considered for the successful management of ECR cases. The treatment of an advanced Class III lesion will be presented with a 13-year follow-up.

Sonendo will also host its 4th Annual 5K Fun Run, featuring warm-up by Science Cheerleader Wendy Brown. Participants can attend a meet-and-greet after the run, take photos and receive fitness gear. The warm-up starts at 6 a.m. on Thursday in Hilton Riverside’s Grand Salon A.

Sonendo will be in booth No. 649, and the company invites meeting attendees to stop by to learn from in-booth speakers and to experience hands-on demonstrations. More information is available online, at Sonendo.com/AAE17.

Tell us what you think!
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Dentsply Sirona Endodontic Suite opens at NYU College of Dentistry

On Thursday, Nov. 17, 2016, NYU College of Dentistry (NYU Dentistry) celebrated the culmination of a goal set years earlier with a ribbon-cutting ceremony for the opening of the Dentsply Sirona Endodontic Suite. The new clinical suite, which employs the most advanced educational and patient care technologies available, was made possible by a partnership between NYU Dentistry and Dentsply Sirona, a manufacturer of professional dental products and technologies.

"Today," said Dr. Charles N. Bertolami, Herman Robert Fox Dean of NYU Dentistry, "NYU has the most sophisticated endodontic suite in the nation, ensuring our ability to provide the finest endodontic education in an environment that reflects truly patient-centered care. And it could never, ever have happened without Dentsply Sirona."

The suite features a fully integrated computer network with best-practice case management software; a fully equipped, state-of-the-art suite with 37 new treatment units, intraoral digital X-ray stations; state-of-the-art endodontic motors, ultrasonic units, intraoral sensors, and a cone-beam computerized tomography (CBCT) scanner, utilizing state-of-the-art scanning technology to produce 3-D images of teeth, soft tissue, nerve pathways and bone in a single scan.

Dr. Asger Sigurdsson, associate professor and chair of NYU's Dr. Ignatius N. and Sally Quartararo Department of Endodontics, expressed his appreciation for both Dentsply Sirona and the college's leadership team for "making possible this outstanding facility."

"For an endodontics department chair," Sigurdsson said, "it is a dream come true." Speaking on behalf of New York University, NYU President Andrew Hamilton said, "Thanks to Dentsply Sirona and its partnership with the College of Dentistry, we have been able to create this beautiful and most advanced facility of its kind. Just one of the new treatment centers would be impressive, that there are 37 of them is remarkable, and that they are all in the same location and interconnected is even more so. NYU thanks Dentsply Sirona from the bottom of our hearts for the remarkable contribution that this new facility makes to the College of Dentistry and to our students' education. It is wonderful to know that the future endodontists we are training will have a positive impact on the lives of our patients and on our community because of the splendid environment they now have in which to learn."

NYU Executive Vice President for Health Robert Berne said: "At NYU, the scarcest commodity is space. The Dentsply Sirona Endodontic Suite is a magnificent example of a brilliant use of space. It is the lodestar for future renovation projects at NYU, the one that people will look to again and again, and it is a major contribution to the education of our students.""Dean Bertolami expressed both the college’s and his personal appreciation to Bret W. Wise, executive chairman of the board of Dentsply Sirona, noting that when the college approached what was then Dentsply International last spring to propose a partnership on behalf of the renovation, the company was in the midst of a complex, international merger with Sirona Dental Systems. Nevertheless, Bertolami said, Wise immediately indicated his support and as soon as the merger was completed, renovation of the existing clinic began.

"This was the first project undertaken by the newly merged Dentsply Sirona and represents our commitment to research, product development and clinical education. Now, one of the best departments of endodontics has the most modern clinical suite. With this new facility, the standard has been set, and together we've created an unparalleled environment for research and clinical education. Dentsply Sirona is grateful for this opportunity to collaborate with NYU to advance dentistry and improve oral health."

Dr. Mark Wolff, the college’s associate dean for development, noted that the effort to renovate the endodontic facility had been years in the making, but once the partnership with Dentsply Sirona was underway, the entire renovation was completed in just three months, making it a “fitting testimony to the powerful synergy that can occur when academia and industry partner on behalf of a shared goal.”

A video of the ceremony can be viewed online, at https://youtu.be/NHt5jUIvZ60.

(Source: Dentsply Sirona)

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Munce enjoys lecturing worldwide on topics related to creative management strategies for endodontic complexities, and he has contributed to numerous textbooks. He is lead author of the "Preparation for Treatment" chapter in the seventh edition of Ingle’s Endodontics.

Contact CJM at www.cjmengineering.com, (805) 962-5532.

(Source: CJM Engineering)
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